



Building Tune-Up Program Overview

Program Overview

Austin Energy (AE) is offering its commercial and industrial customers, or their building owners, the opportunity to make significant operational performance improvements in their buildings by participating in the Building Tune-Up Program (BTUP). Eligible building owners can receive the benefit of an AE-funded buy-down for implementing the Continuous Commissioning[®] program offered by the Texas Engineering Experiment Station's (TEES) Energy Systems Laboratory located at Texas A&M University.

The Building Tune-Up Program is designed to achieve demand and energy savings in commercial and industrial buildings served by AE. Typical savings may be 15–20 % annually with a 2-year payback. Energy savings and demand reductions are realized through the systematic optimization of building systems and controls and implementation of low-cost or no-cost measures targeted to improve HVAC system energy use and, in many cases, improve occupant comfort. For more detailed program information, contact the BTUP administrator at (512) 482-5376 or tiger.davis@austinenergy.com.

Customer and Facility Eligibility

To help achieve the program cost-effectiveness criteria, program participants are required to meet the following minimum eligibility requirements:

- Participants must purchase retail electricity from AE, under a retail demand tariff or be the owner of a building with a retail demand customer served by AE.
- The building or facility must possess a minimum of 100,000 square feet of conditioned space and have a minimum summer peak demand of 200 kW.
- The building or facility must have a dedicated in-house operations and maintenance staff or contractor available to continually support the project implementation.
- The building owner must enter into a separate agreement with TEES for an Initial Assessment Report of the potential savings and implementation cost for Continuous Commissioning[®] of the facility.
- The building owner must provide a copy of the initial assessment report to AE at the time of application.
- The building owner must enter into an formal agreement with AE and TEES to implement the recommendations outlined in the Initial Assessment Report that have a simple payback of two (2) years or less after AE conservation rebates are applied, if applicable.

Although most buildings can benefit from a building tune-up, the best candidate buildings have the following characteristics:

- The building is equipped with an energy management control system that has a substantial number of monitoring and control points.
- The HVAC and control systems are free of major problems requiring costly repairs, replacements or major equipment upgrades.
- Building mechanical plans and equipment schedules are readily accessible.
- The building size is 100,000 square feet or greater.
- The building has high, normalized peak demand (watts/square foot) and normalized annual energy costs (\$/square foot per year).
- Building and/or zones have persistent “hot and cold calls.”

Based on the above considerations, the participant, AE and TEES will jointly determine if the facility is a good candidate for this program.

Funding and Conservation Rebates

Program funding and conservation rebates are provided to participants in two ways:

- Incentives are provided for an actual Building Tune-Up through an existing agreement between AE and TEES. The initial assessment must be paid 100% by the Participant to TEES. AE will then offset (up to 75% or a maximum of \$10,000) of the cost for the Participant to implement the recommended Continuous Commissioning® measures in the Initial Assessment Report by directly paying TEES as they complete the first phase of the implementation process. The amount of funding and the application process is referenced elsewhere.
- Conservation rebates are provided to offset the cost of implementing demand saving measures identified in the Initial Assessment that meet AE current conservation rebate program guidelines.

Pre-approved Service Providers

Currently, AE and TEES has an existing agreement for the implementation of Continuous Commissioning® services; consequently TEES is the only approved service provider for this program.

Program Process

The program process for each building tune-up project follows the basic program phases:

1. Initial Continuous Commissioning® Assessment Phase
2. Continuous Commissioning® Implementation Phase
3. Verification Phase

Initial Assessment Phase

The program begins with the joint meeting between TEES, AE, and the Participant. During the meeting and subsequent walk-through, it will be jointly determined whether the building is a good candidate for participation. If the building is a good candidate, then the Customer and TEES enter into an agreement to complete an initial assessment.

During the Initial Assessment phase, Austin Energy will assist by providing electric billing data as well as 15-minute demand data, where available. If additional 15-minute demand data is required, any costs associated with obtaining the data is the Participant's responsibility.

During the Initial Assessment phase, TEES, with assistance from the building facility staff, will conduct a site assessment to develop an in-depth understanding of the building systems and condition of the HVAC systems and controls. Investigation phase activities may include:

- Gathering mechanical drawings, energy use, operational and equipment data to assess building HVAC operation prior to an on-site visit.
- Developing a diagnostic and calculation plan to direct the TEES investigation effort.
- Conducting field measurements and data collection to determine scheduling and loading and to support engineering calculations.
- Assessing the Operations and Maintenance of the facility and outstanding deferred maintenance items, if any, as well as the need for energy efficiency upgrades to the building HVAC and control systems.
- Assessing the cost to correct identified opportunities, optimize energy use and comfort and calculating the corresponding simple payback period.
- Developing a proposed post-implementation verification procedure (i.e., visual inspections, spot measurements, trend logging and/or tracking monthly utility billings) to be used to verify savings for major recommended measures.

After completing the Initial Assessment Phase, TEES and the Participant will review the recommendations and develop a plan for implementation of recommended measures.

Continuous Commissioning® Implementation

Ultimately, the implementation of the selected measures is the responsibility of the Participant utilizing the services of TEES.

The Participant will submit an application to AE complete with the following:

- Completed program application.
- A copy of the initial assessment.
- A copy of the paid TEES invoice for the initial assessment.
- A copy of the Continuous Commissioning® implementation agreement with TEES.

AE will reimburse TEES for a pre-approved amount to partially offset the cost of the Continuous Commissioning® implementation phase.

Verification Phase

During the Verification Phase, TEES will visit the site to verify that measures have been properly installed, new control strategies are in place and appropriate repairs have been made, etc. An analysis of energy savings from a building tune-up will also be conducted by TEES for the Participant and AE. Following that, TEES submits an Implementation Verification Report to AE that summarizes its findings with revised savings estimates.

Austin Energy/TEES Reimbursement Amounts

AE will reimburse TEES for completed Continuous Commissioning® implementation activities up to the maximum amount of 75% cost of the Initial Assessment or \$10,000, whichever is less. The amount is based on one site per assessment per year per Participant.